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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,389	11/13/2000	Hung Chih Chen	5304/449001	9003

32588 7590 05/06/2003

APPLIED MATERIALS, INC.
2881 SCOTT BLVD. M/S 2061
SANTA CLARA, CA 95050

EXAMINER

NGUYEN, DUNG V

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 05/06/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,389

Applicant(s)

CHEN ET AL

Examiner

Dung V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5-8 and 10-40 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,7,8,15,16,18-23,25 and 32-40 is/are allowed.
- 6) ☒ Claim(s) 5,6,13,14,17,24 and 26-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5, 6, 13, 14, 17, 24 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlov et al (USPN 5,964,653) in view of Lee (USPN 5,851,136). Perlov et al disclose a carrier head comprising a housing 150 to be secured to a drive shaft 92, a base assembly 204, a loading chamber 206 controlling the position of the base assembly 204 relative to the housing 150, a flexible membrane 210 having a generally circular main portion with a lower surface that provides a substrate-mounting surface and a plurality of concentric annular flaps secured to the base assembly 204, the volume between the base assembly 204 and the flexible membrane 210 forming a plurality of pressurizable chambers 212, 214 and 216 (note Fig. 5, col. 7, line 66 to col. 12, line 37). Perlov et al do not disclose the annular flap including a notch. Lee discloses a flap 276 including a notch 277a, wherein the notch 277a is formed at a juncture between the at least one of the flaps 276 and the main portion 277 (note Fig. 10, col. 10, line 62 to col. 11, line 27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the annular flap of Perlov et al with a notch as disclosed by Lee in order to minimize distortion of the flexible membrane.

Allowable Subject Matter

3. Claims 3, 7, 8, 15, 16, 18-23, 25 and 32-40 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: The rejection of claims 7, 8, 18-2 and 25 have been withdrawn because Zuniga et al (USPN 6,159,079) is disqualified as prior art against the claimed invention since the subject matter and the claimed invention were at the time the invention was made owned by the same person and subject to an obligation of assignment to the same person.

Response to Arguments

5. In response to applicant's argument that the notch disclosed by Lee does not provide the same function as the notch recited in claims 5 and 13 of the present invention, claims 5 and 13 containing a recitation with respect to a function in which the claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus when prior art apparatus teaches all the structure limitations of the claim (see MPEP 2114).
6. In response to applicant's argument that if Lee's notch were to be combined with Perlov's membrane, the notch would be located in the outer annular portion not in the inner annular portion, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references

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would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

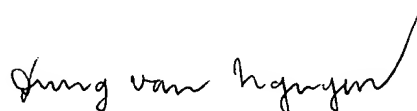
7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
8. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung V Nguyen whose telephone number is 703-305-0036. The examiner can normally be reached on M-F, 6:30-3:00.
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J Hail can be reached on 703-308-2687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

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11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

DVN

May 2, 2003

A handwritten signature in cursive script, appearing to read "Dung Van Nguyen", with a long, sweeping flourish extending from the end.

Dung Van Nguyen
Patent Examiner